Light Source User Guide

Compact 150W DMX+ Light Source

Models Covered by this manual:

UFO 150 CDMX+G
UFO 150 CDMX+P
UFO 70 CDMX+G
UFO 70 CDMX+P

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INTRODUCTION

Thank you for purchasing this UFO light source.

Please read these instructions fully before connecting your unit to the electrical supply, and keep them for future reference.

A high performance 150W metal halide light source for ultimate brightness which can be fitted with three wheels for decorative lighting effects.

We do not recommend that the light source be left on for 24 hours a day, 7 days a week as lamp life will be impaired. A switch off of 30mins per day is recommended.

IMPORTANT

THIS PRODUCT MUST BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE INSTALLATION CODE BY A PERSON FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THE PRODUCT AND THE HAZARDS INVOLVED

Do not operate without complete lamp enclosure in place or if lens is damaged.

KEEP HARNESS IN PLACE WHEN IN OPERATION.

CAUTION: Hot surface. Keep away from curtains and other combustible materials.

WARNING: RISK OF FIRE/INJURY TO PERSONS. Keep away from combustibles. Unplug to change lamp. Do not touch lamp.

WARNING: RISK OF FIRE. Do not place lamp where the overhead surface is closer than 0.3m to the light source.

IMPORTANT SAFETY INFORMATION

INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK OR INJURY TO PERSONS

IMPORTANT SAFETY INSTRUCTIONS

Lighted Lamp is HOT:

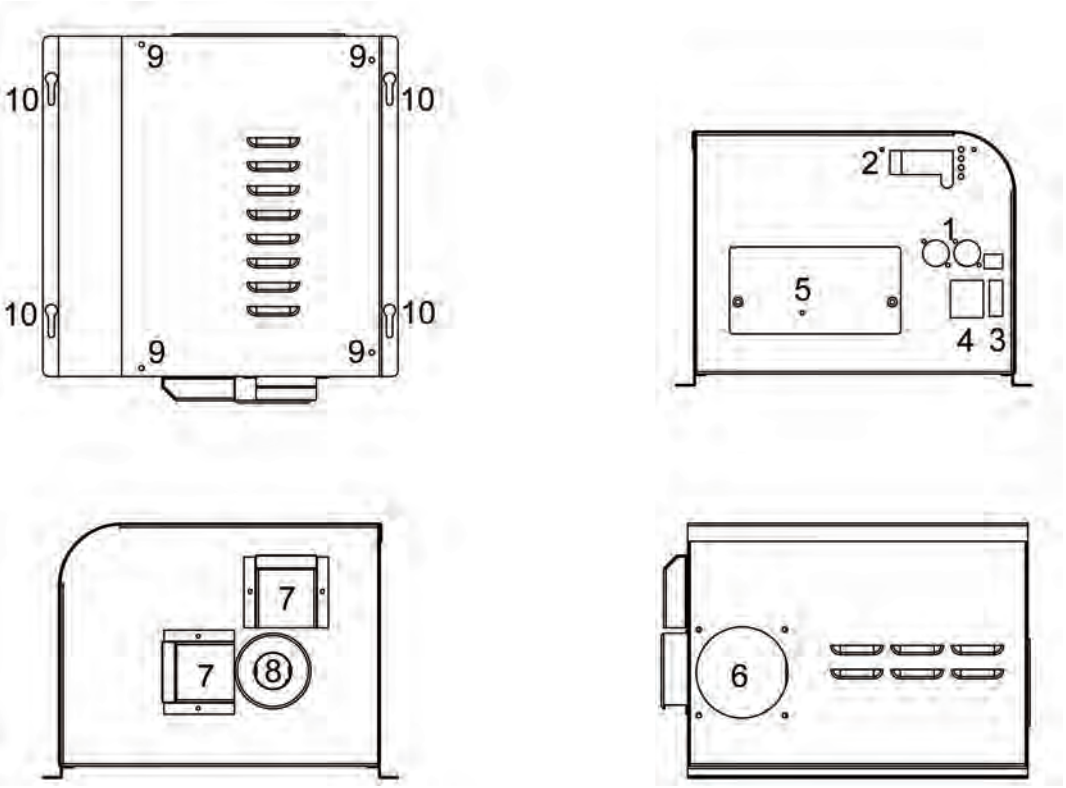
WARNING – To reduce the risk of FIRE, ELECTRIC SHOCK OR INJURY TO PERSONS:

1. Unplug and allow to cool before replacing lamp.
2. Lamp gets HOT quickly! Only contact plug when turning on.
3. Do not touch hot lens, guard, or enclosure.
4. Do not remain in light if skin feels warm.
5. Do not look directly at lighted lamp.
6. Keep lamp away from materials that may burn.
7. Use only with the correct lamp wattage as detailed on the serial label. Failure to adhere to this will cause damage to the unit.
8. Do not touch the lamp at any time. Use a soft cloth. Oil from skin may damage lamp.
9. Do not operate product with missing or damaged guard, lamp containment barrier, lens or fibre optic harness.
10. Contact UFO for replacement lamp guard, lamp containment barrier, lens or fibre optic harness
11. WARNING - Lamp types are matched to the ballast and different wattages/types cannot be used.

SAVE THESE INSTRUCTIONS

- Always disconnect the unit from the power supply before opening or attempting to perform any work on it.
- UNIT MAY GET HOT - always allow unit to cool down before handling or moving it.
- Do not touch or attempt to remove the lamp while it is hot.
- Ensure that the power supply is correct for the unit before powering it up.
- Always ensure that the unit is properly EARTHED.
- Do not expose the unit to rain or moisture.
- Keep away from all combustible materials.
- Never attempt to tamper with the wiring or other internal components.
- Keep the unit away from gas, oil and any other flammable or explosive materials.

LIGHT SOURCE LAYOUT



Item	Description
1	DMX connection Sockets
2	LED display and control buttons
3	Power LED
4	Mains power input
5	Lamp holder
6	Cooling fan
7	Motor Covers
8	Fibre port
9	4 x Access screws
10	4 x Mounting holes

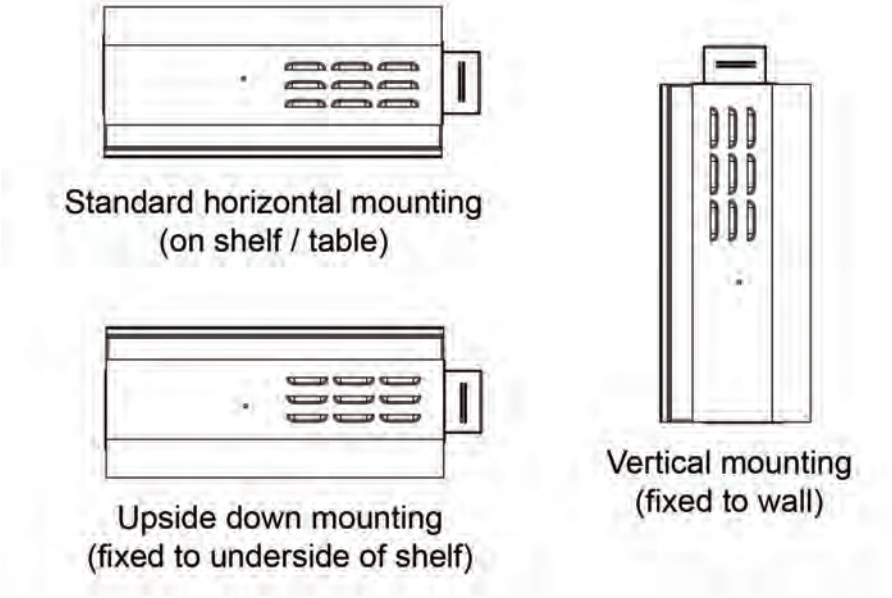
INSTALLATION GUIDE

In order for the DMX+ light source to function safely and efficiently it must be installed according to this user manual. Please read all sections thoroughly before switching on the light source.

POWER SUPPLY REQUIREMENTS

Before plugging in the unit, please make sure that the supply is correct. Failure to do so could cause the unit to malfunction. The unit requires a 240VAC 50Hz supply and it MUST BE EARTHED. The light source units are provided with a cordset fitted with a standard plug. UNIT MUST NOT BE DIMMED.

POSITIONING THE UNIT



The light source can be mounted horizontally, vertically or upside-down on any flat surface. Keyhole slots are provided on the base of the unit to allow for securing to a surface. The light source is only suitable for use in a dry area.

If the unit is being mounted at a higher than the ground level, block access below the work area before installing.

Verify that any screws or bolts can safely bear the weight of the light source.

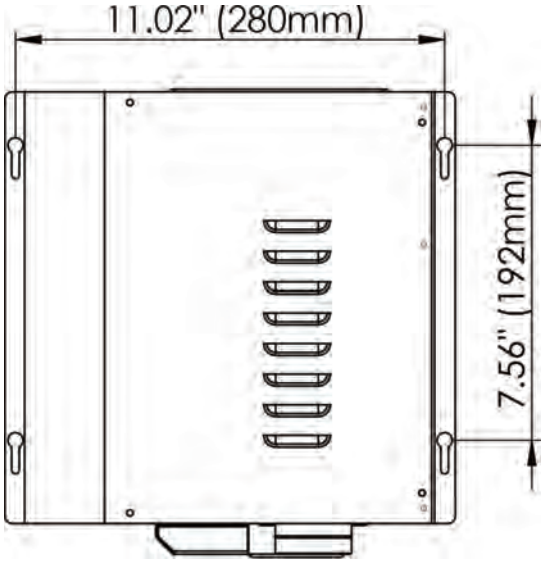
INSTALLATION GUIDE (Continued)

Verify that the supporting structure can safely bear the weight of all installed units, cables and any other equipment.

For horizontal mounting, it is recommended that the light source is secured to a solid surface using 4 x M4 or M5 screws or bolts and the keyhole slots. This is particularly important if the light source location is not at ground floor level.

To mount the light source vertically, first securely install 4 x M4 or M5 screws or bolts at the required distances so that they will line up with the keyhole slots. The light source can then be mounted onto them and slid into position. The bolts or screws MUST then be fully tightened.

To mount the light source under a surface, first securely install 4 x M4 or M5 screws or bolts at the required distances so that they will line up with the keyhole slots. The light source can then be mounted onto them and slid into position. The bolts or screws MUST then be fully tightened.



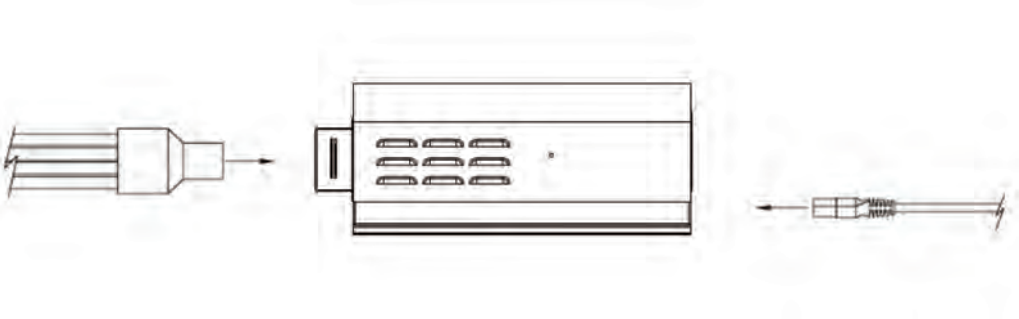
CLEARANCE / VENTILATION

It is imperative that a gap of 300mm or more is left around the unit. This is to allow air to circulate and prevent overheating. The location must have free ventilation.

INSTALLATION GUIDE (Continued)

CONNECTION

There are 2 main connections required - the fibre port and the mains power supply. Connect and secure the fibre optic connector to the fibre port before connecting the electrical supply. Never run the light source with the fibre connector unplugged. For separate feed units, there will be additional power connections required.



OPERATION

After installing and connecting the light source as described above, all you have to do is turn the power on. The lamp will take 3-4 minutes to reach full brightness. This is normal for this type of light source.

If no light is produced, please consult the TROUBLESHOOTING section in this manual

OPERATION (Continued)

REAR PANEL CONTROLS

Button Functions

Menu

Enter

Up

Down

MENU FUNCTIONS

Repeatedly pressing the MENU button cycles through the following modes:

Mode	Display	Description
Address	ADDR	Manually select the DMX address using up & down buttons. Press enter when selected
Mode	MODE	Select either DMX or MASTER using up & down buttons. Press enter when selected. In MASTER the unit will control another unit set to DMX
Program	PROG	Manually select from a range of standalone programs. Press enter when selected.
Time	TIME	Select the length of time between colour changes. Press enter when selected.
Dimmer	DIM	Manually control the dimmer from fully open to fully closed. Press enter when selected.
Reset	RST	Forces the unit into an initialise or reset condition. Press enter when selected.

Notes:

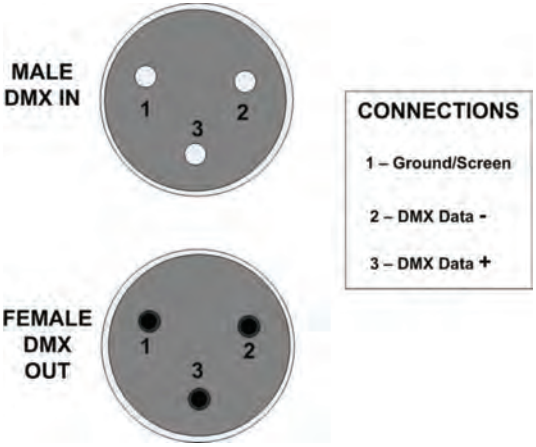
1. The left hand display module shows a rotating ‘X’ when DMX data is present.
2. The microphone (under the display) for sound to light applications is a fully functional device, but is not implemented in the software. This application is a special feature on request.

OPERATION (Continued)

REAR PANEL CONNECTIONS

1. DMX OUT - standard 3-pin DMX output connector
2. DMX IN - standard 3-pin DMX input connector
3. AC IN - standard fused IEC power connector
4. DATA OUT - RJ45 connection to UFO RIU (remote indicator unit)

The DMX wiring connections are detailed below:



Like all data networks the DMX cable should be terminated on the DMX out of the last light source using a terminator plug.

OPERATION (Continued)

The DMX+ light source has two modes of operation.

STANDALONE MODE

In standalone mode, the Compact DMX+ can be used in two ways - either as a single independent light source or in master/slave configuration with several light sources connected together using DMX cables.

In master/slave configuration all addresses are set the same and whatever program is selected on the master unit will also be executed on the slave units.

DMX MODE

Light sources set in DMX mode can either be controlled by another Compact DMX+ in master mode, or by a standalone DMX controller.

PROGRAMMING THE DMX+

The DMX+ can be programmed for various functions and modes from the rear panel controls as shown on the following pages.

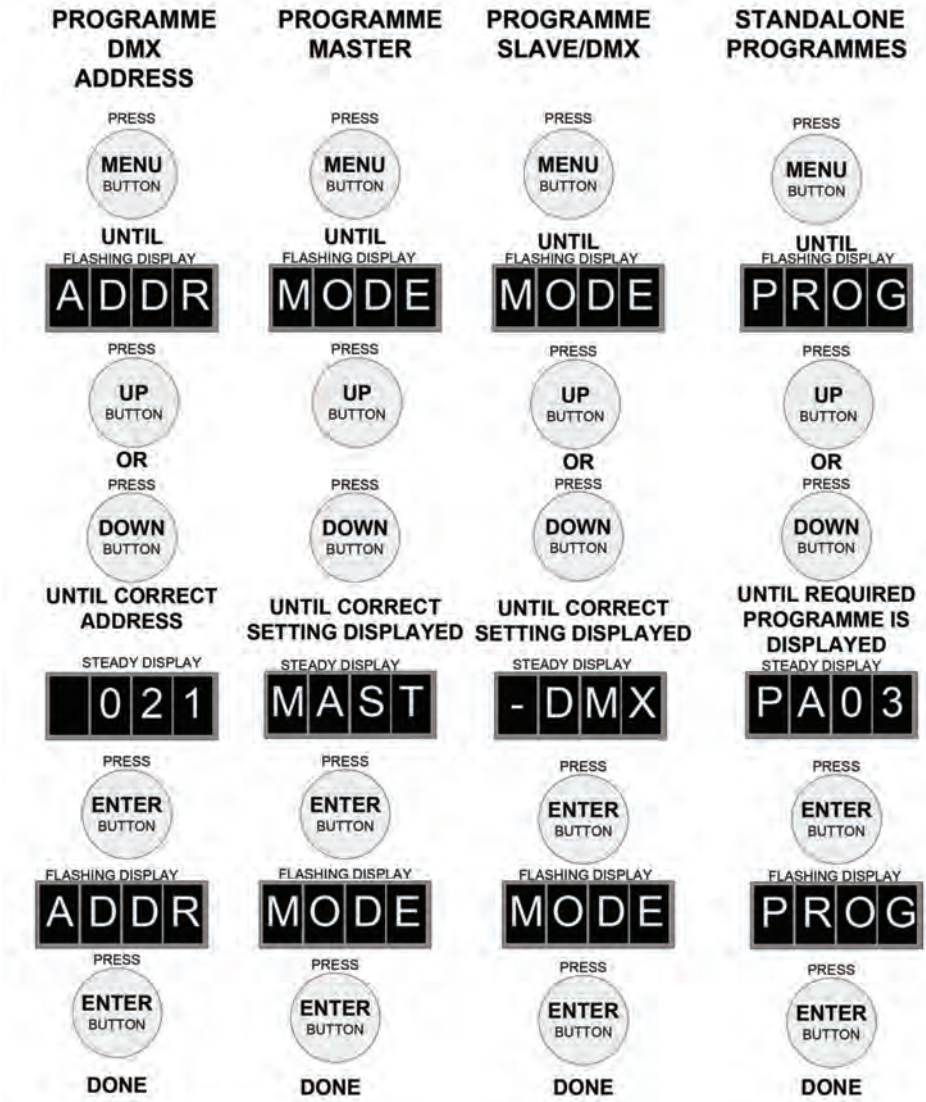
RESET VIA DMX

When resetting via DMX (Channel 1 - 128-191) care must be taken to ensure channels 2 to 5 are first set to 0 value.

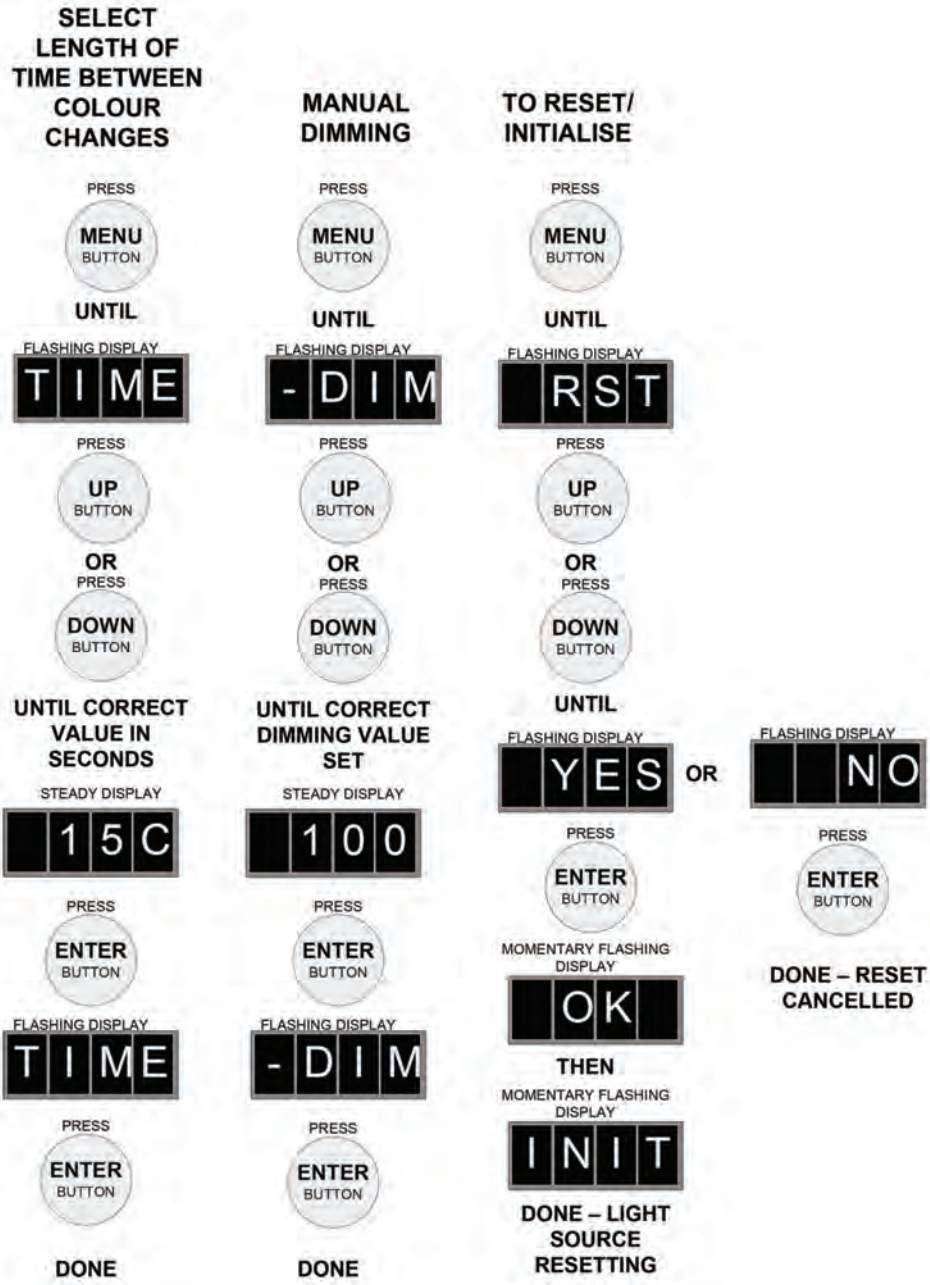
Failure to do this will result in the light source ‘freezing’. If a light source freezes in this way it can be reverted to normal by cycling the mains power off and then on again.

OPERATION (Continued)

PROGRAMMING THE DMX+



OPERATION (Continued)
PROGRAMMING THE DMX+



OPERATION (Continued)

DMX CHANNEL INFORMATION

Channel	Function	Fun no.	Value	Effect
01	Reset and lamp/fans power	01	0-127	Normal and lamp on
01	Reset and lamp/fans power	02	128-191	Reset if held for 5 seconds *
01	Reset and lamp/fans power	03	192-250	Normal and lamp on
01	Reset and lamp/fans power	04	251-255	Lamp off if held for 10 seconds
02	Dimmer wheel control	01	0-255	0=fully closed / 255=fully open
03	Colour wheel variable 0-90	01	0	Clear/white
03	Colour wheel variable 0-90	02	10	Colour 1 (blue)
03	Colour wheel variable 0-90	03	20	Colour 2 (green)
03	Colour wheel variable 0-90	04	30	Colour 3 (yellow)
03	Colour wheel variable 0-90	05	40	Colour 4 (red)
03	Colour wheel variable 0-90	06	50	Colour 5 (pink)
03	Colour wheel variable 0-90	07	60	Colour 6 (orange)
03	Colour wheel variable 0-90	08	70	Colour 7 (violet)
03	Colour wheel variable 0-90	09	80	Colour 8 (magenta)
03	Colour wheel variable 0-90	10	90	Colour 9 (apricot)
03	Colour wheel snap 91-170	11	91-98	Colour 9
03	Colour wheel snap 91-170	12	99-106	Colour 8
03	Colour wheel control snap to colour 91-170	13	107-114	Colour 7
03	Colour wheel control snap to colour 91-170	14	115-122	Colour 6
03	Colour wheel control snap to colour 91-170	15	123-130	Colour 5
03	Colour wheel control snap to colour 91-170	16	131-138	Colour 4
03	Colour wheel control snap to colour 91-170	17	139-146	Colour 3
03	Colour wheel control snap to colour 91-170	18	147-154	Colour 2
03	Colour wheel control snap to colour 91-170	19	155-162	Colour 1
03	Colour wheel control snap to colour 91-170	20	163-170	Clear/white
03	Colour wheel speed clockwise	21	171-212	Fast to slow
03	Colour wheel speed counter-clockwise	22	213-255	Slow to fast
04	Twinkle wheel control	01	0-15	Stop/open
04	Twinkle wheel control clockwise	02	16-127	Slow to fast
04	Twinkle wheel control	03	128-143	Stop/open
04	Twinkle wheel control counter-clockwise	04	144-255	Fast to slow
05	Colour wheel display duration	01	0-255	Short to long duration

*See reset note on page 9

OPERATION (Continued)

STANDALONE/MASTER PROGRAMMABLE FUNCTIONS

Prog	Function	Prog	Function
PA01	Colour 9, no twinkle	PC01	Snap colour change 0-9, no twinkle
PA02	Colour 8, no twinkle	PC02	Snap colour change 1-9, no twinkle
PA03	Colour 7, no twinkle	PC03	Snap colour change 2-9, no twinkle
PA04	Colour 6, no twinkle	PC04	Snap colour change 3-9, no twinkle
PA05	Colour 5, no twinkle	PC05	Snap colour change 4-9, no twinkle
PA06	Colour 4, no twinkle	PC06	Snap colour change 5-9, no twinkle
PA07	Colour 3, no twinkle	PC07	Snap colour change 6-9, no twinkle
PA08	Colour 2, no twinkle	PC08	Snap colour change 7-9, no twinkle
PA09	Colour 1, no twinkle	PC09	Snap colour change 8-9, no twinkle
PA10	Colour 0, no twinkle	PC10	Snap colour change 2-6, no twinkle
SA01	Colour 9, twinkle	SC01	Snap colour change 0-9, slow twinkle
SA02	Colour 8, twinkle	SC02	Snap colour change 1-9, slow twinkle
SA03	Colour 7, twinkle	SC03	Snap colour change 2-9, faster twinkle
SA04	Colour 6, twinkle	SC04	Snap colour change 3-9, faster twinkle
SA05	Colour 5, twinkle	SC05	Snap colour change 4-9, fastest twinkle
SA06	Colour 4, twinkle	SC06	Snap colour change 5-9, fastest twinkle
SA07	Colour 3, twinkle	SC07	Snap colour change 6-9, faster twinkle
SA08	Colour 2, twinkle	SC08	Snap colour change 7-9, slower twinkle
SA09	Colour 1, twinkle	SC09	Snap colour change 8-9, slower twinkle
SA10	Colour 0, twinkle	SC10	Snap colour change 2-6, slowest twinkle
PB01	Colour change 0-9, no twinkle	PD01	Colour rotate twinkle 1
PB02	Colour change 1-9, no twinkle	PD02	Colour rotate twinkle 2
PB03	Colour change 2-9, no twinkle	PD03	Colour rotate twinkle 3
PB04	Colour change 3-9, no twinkle	PD04	Colour rotate twinkle 4
PB05	Colour change 4-9, no twinkle	PD05	Colour rotate twinkle 5
PB06	Colour change 5-9, no twinkle	PD06	Colour rotate twinkle 6
PB07	Colour change 6-9, no twinkle	PD07	Colour rotate twinkle 7
PB08	Colour change 7-9, no twinkle	PD08	Colour rotate twinkle 8
PB09	Colour change 8-9, no twinkle	PD09	Colour rotate twinkle 9
PB10	Colour change 2-6, no twinkle	PD10	Colour rotate twinkle 10
SB01	Colour change 0-9, slow twinkle	SD01	Colour rotate twinkle speed 1 ccw
SB02	Colour change 1-9, slow twinkle	SD02	Colour rotate twinkle speed 2 ccw
SB03	Colour change 2-9, faster twinkle	SD03	Colour rotate twinkle speed 3 ccw
SB04	Colour change 3-9 ,faster twinkle	SD04	Colour rotate twinkle speed 4 ccw
SB05	Colour change 4-9, fastest twinkle	SD05	Colour rotate twinkle speed 5 ccw
SB06	Colour change 5-9, fastest twinkle	SD06	Colour rotate twinkle speed 5 cw
SB07	Colour change 6-9, fastest twinkle	SD07	Colour rotate twinkle speed 4 cw
SB08	Colour change 7-9, slower twinkle	SD08	Colour rotate twinkle speed 3 cw
SB09	Colour change 8-9 ,slower twinkle	SD09	Colour rotate twinkle speed 2 cw
SB10	Colour change 2-6, slowest twinkle	SD10	Colour rotate twinkle speed 5 cw

MAINTENANCE

CLEANING THE UNIT

Disconnect unit from power supply and allow to cool before attempting any cleaning of the unit.

A visual check of the unit should be completed every 12 months. However cleaning should take place as and when required.

The body of the unit can be cleaned with a soft, damp cloth - do not use any abrasives on the unit.

The fans and vents should be kept clear by periodically blowing them out with compressed air.

Glass filter to be cleaned with soap and water then dried.

Please note that a record of all maintenance MUST be kept in the table below, indicating what maintenance was undertaken and when. This must be DATED for warranty purposes.

Date	Maintenance Undertaken

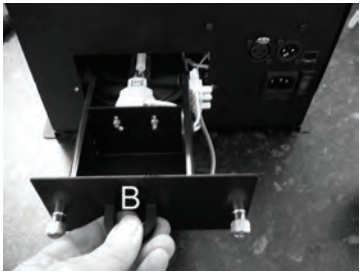
MAINTENANCE

LAMP REPLACEMENT - Recommend Lamp change every 12 months for Metal Halide

1) Unplug unit from electrical supply and allow to cool.

2) On the rear of the unit, unscrew the two knurled securing nuts (A) which hold the lamp holder in position.

3) Use the handle (B) to withdraw the lampholder from the light source.



4) Unplug the old lamp from its ceramic holder.

5) Plug the new lamp into the holder, making sure that you use a lamp of the same specification as to that which was removed. Also make sure not to touch the glass part of the lamp.

6) Slide the lamp holder plate back into position carefully – making sure the lamp drawer runners line up internally on the lampholder slides. Push the drawer home firmly and tighten the two retaining nuts.

NOTE: If the lamp does not strike after replacement check to see if the fans are running. If the lamp is not striking and the fans are not running, the lampholder drawer is not properly inserted

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MAINTENANCE (continued)

FUSE REPLACEMENT

1) Unplug unit from electrical supply and allow to cool.

2) The fuse is located in a drawer under the mains input connector. There is also a spare fuse located in this drawer.

3) Open the fuse drawer.

4) Withdraw fuse from its holder

5) Replace with identically specified fuse - see specification table in this manual.

6) Close the fuse drawer and power up the light source.

TROUBLESHOOTING

Problem	Probable cause(s)	Remedy
Unit is completely dead - Lamp and neon power indicator are not illuminated	Main fuse blown	Check and replace fuse.
	No power to unit	Check that power is switched on and power supply is plugged in.
LED power indicator & fan are on, but no light is output	Lamp blown	Replace lamp
	Thermal switch activated	Allow unit to cool for 5 to 10 minutes and investigate reason for overheating
	Lamp wires are not connected	Check plug connection - ensure lamp is properly seated in its holder and the pins are fully mated
Poor light output	Lamp needs replacing	Replace lamp
	Unit needs cleaning	Clean reflector and glass lens
	Incorrect power supply	Ensure power supply is 120VAC 60Hz
	Fibre port connector not plugged in correctly	Ensure fibre port connector is plugged in correctly, and that the screw is tightened up properly
Lamp going on & off randomly	Unit is overheating	Allow unit to cool for 5 to 10 minutes and investigate reason for overheating
Lamp not striking & both fans not running	Lamp holder drawer on rear of unit not pushed in fully	Remove lamp holder drawer and reinsert, ensuring fully pushed hime and tightened up
Unit resets correctly but does not respond to controller	The controller is not connected	Connect the controller
	Reversed data signal polarity	Install a phase reversing cable between the unit and the controller
	Bad data link connection	Check cables and connections. Repair or replace damaged cables.
	Data link not terminated	Insert termination plug into output of the last unit in the link
	Incorrect address setting	Check address setting
	One of the units is transmitting as a master or is faulty	Bypass one fixture at a time until normal operation is regained
Unit does not reset correctly	An effect requires mechanical adjustment	Contact UFO for assistance
No light output	Lamp too hot to strike	Allow lamp to cool
	Faulty lamp	Check and replace lamp
Lamp cuts out intermittently or burns out too quickly	Unit is too hot	Allow unit to cool
	Faulty fan	Contact UFO for assistance
Unit freezes during DMX reset	Reset not correctly carried out	Recycle mains power off and on. See page 9

The DMX+ display will also show 'lamp error' and 'temperature error' messages which can be used to assist in fault diagnosis.
Please complete troubleshooting procedures before returning unit to us for further investigation.

TECHNICAL SPECIFICATIONS

Description	Compact 250W DMX+
Port connector size	30mm diameter
Fibre type	Glass & PMMA
Supply voltage	240VAC 50Hz
Lamp power	150W or 70W
Start up current	0.5A @ 240VAC
Running current	1.05A @ 240VAC
Min. ambient temp.	-20°C
Max. ambient temp.	40°C
Thermal protection	Self reset thermal switch
Ballast type	Electronic
Fan type	Sunon SP101A & Papst 8800N
Power cord	IEC mains cable
Main fuse	6.3 Amp
Lamp type	Metal halide
Lamp models	Philips CDM-SA-T 150W/942 (150W, 4200K) Philips CDM-T 150W/830 (150W, 3000K) Philips CDM-T 70W/942 (150W, 4200K) Philips CDM-T 70W/830 (150W, 3000K)
*Lamp life	Philips CDM-SA-T 150W/942 c. 9000h Philips CDM-T 150W/830 c. 12000h Philips CDM-T 70W/942 c. 12000h Philips CDM-T 70W/830 c. 12000h
Lamp colour temp.	4200K and 3000K options
Lamp CRI	Philips CDM-SA-T 150W/942 95 Philips CDM-T 150W/830 88 Philips CDM-T 70W/942 92 Philips CDM-T 70W/830 84
Colour wheel	9 colours plus white
Standard wheel colours	Blue, green, yellow, red, pink, orange, violet, magenta , apricot
Acoustic rating	47.5dB(A)
Operating environment	Indoor / dry
Protection rating	IP20
Material	Sheet steel
Colour	Black powder coated
Size	282mm(L) x 300mm(W) x 210mm(H)
Weight	7.66kg

* lamp life as stated by manufacturer in optimum conditions

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